

Abstract

An extended colorspace which has a higher accuracy and a wider gamut than sRGB color space is disclosed. The extended color space includes an alpha channel which defines the translucency of the color image. The alpha channel is different from known alpha channels in that the inventive alpha channel can represent “super transparent” and “super opaque” values by allowing the alpha parameter (α) to be greater than 1 and less than 0. A data structure for storing the extended colorspace information has three fields, a sign field, an integer field and a decimal field. The sign field defines whether an integer is negative or positive. The integer field defines the integer, wherein the integer defines the super or under saturated values for color and alpha components. The decimal field defines the fine detailed information for the value of the color and alpha components.